

Chicago Crime Fighting Initiative

Assessment & Strategy Development

Crime Fighting Plans

Partnerships

Command Accountability

Communication with all levels

Knowledge Transfer & Exchange

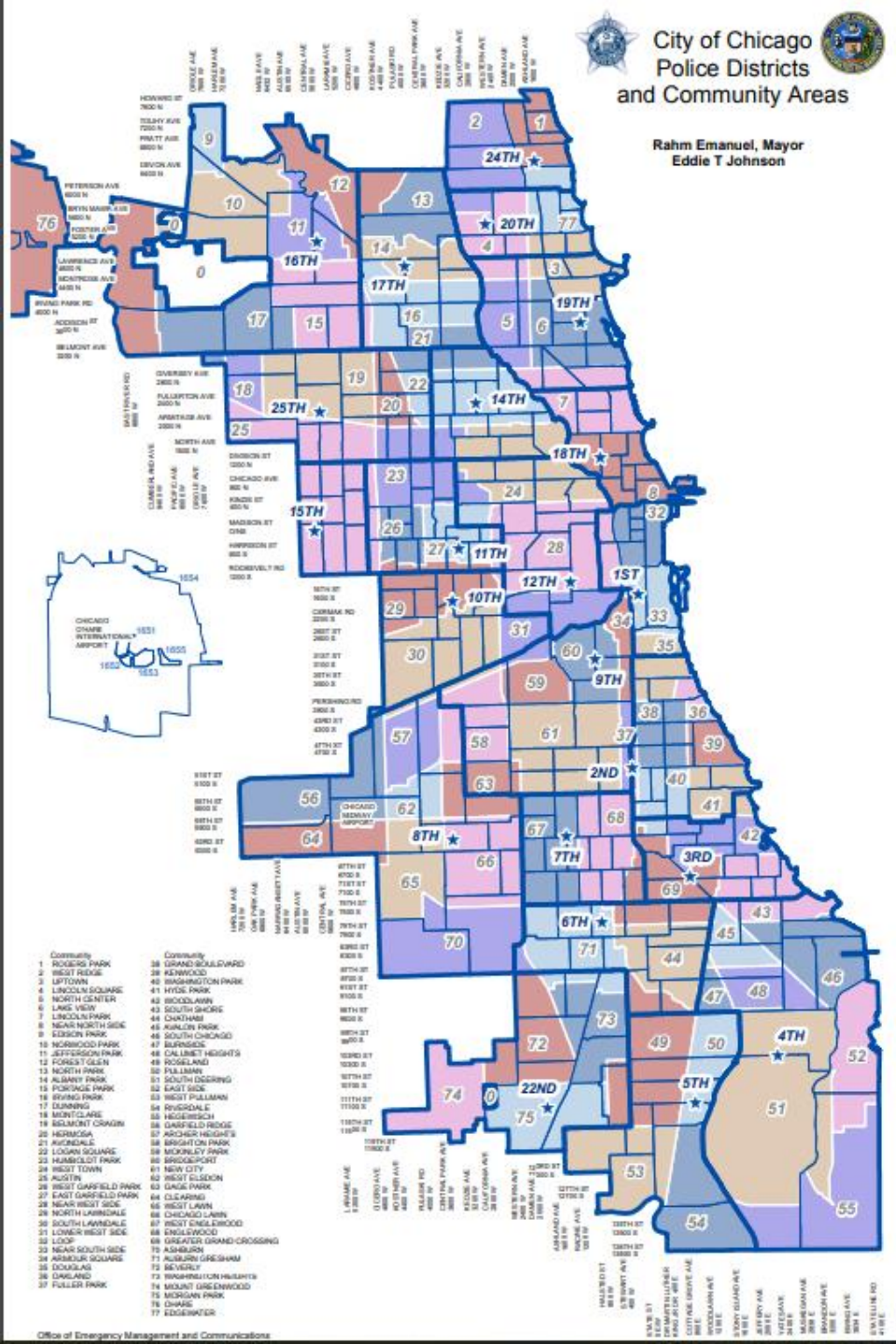
Community Focused

Data Driven

Eddie T. Johnson, Superintendent of Police

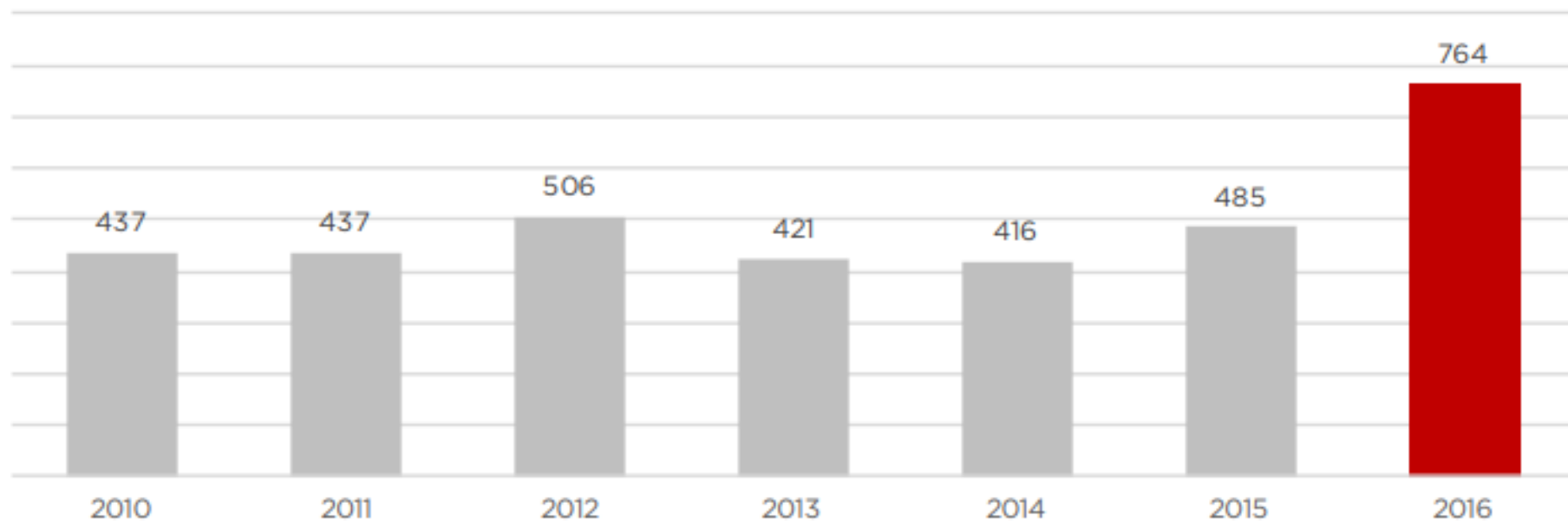
Chicago and CPD Districts Overview

- 2.7 million people; 234 square miles
- 22 districts; 13,200 sworn officers
- About 125,000 people and 11 square miles per district
- Second-Largest Police Department in United States (NYPD, Chicago, LAPD are top 3).

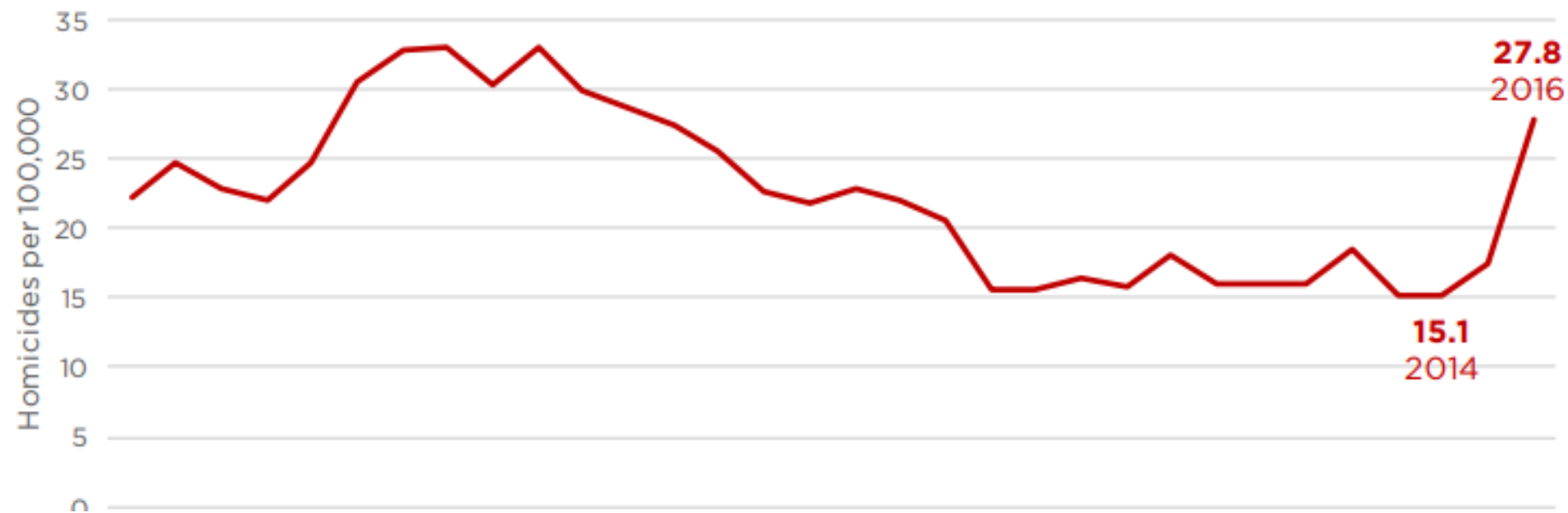


SDSC Video





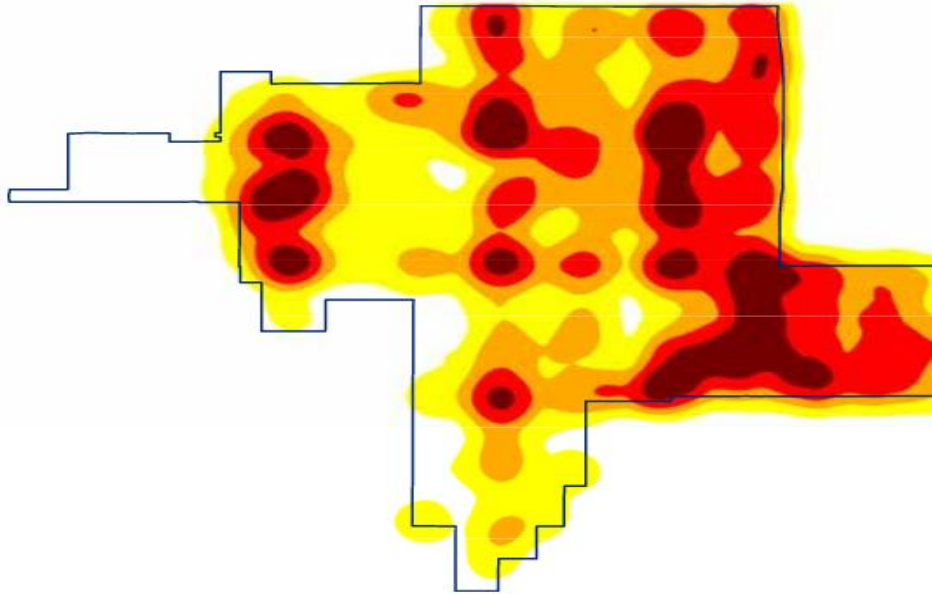
Source: Crime Lab analysis of CPD records



SDSCs

Strategic Decision Support Centers (SDSCs), a partnership between:

- CPD
- Mayor's Office
- Chief Sean Malinowski, LAPD
- University of Chicago Crime Lab



1. Data-driven police management at the district level
2. Build-out of data / IT capacity
3. Expanded tracking of metrics (e.g., community interactions)

PRECISION POLICING



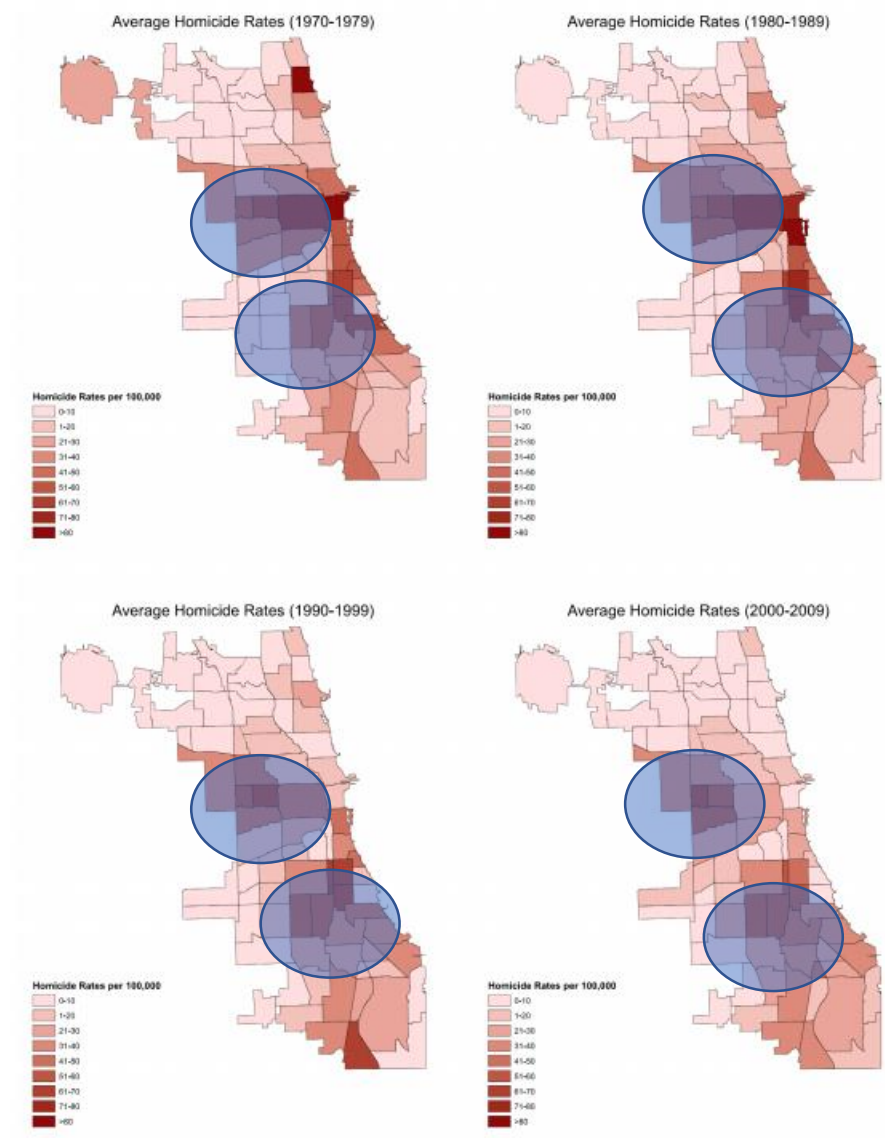
Small percentage of people are most likely to be drivers of violence

- Use data to develop risk models and interventions

Small percentage of geography has majority of the crime

- Use data to identify geography and inform strategies

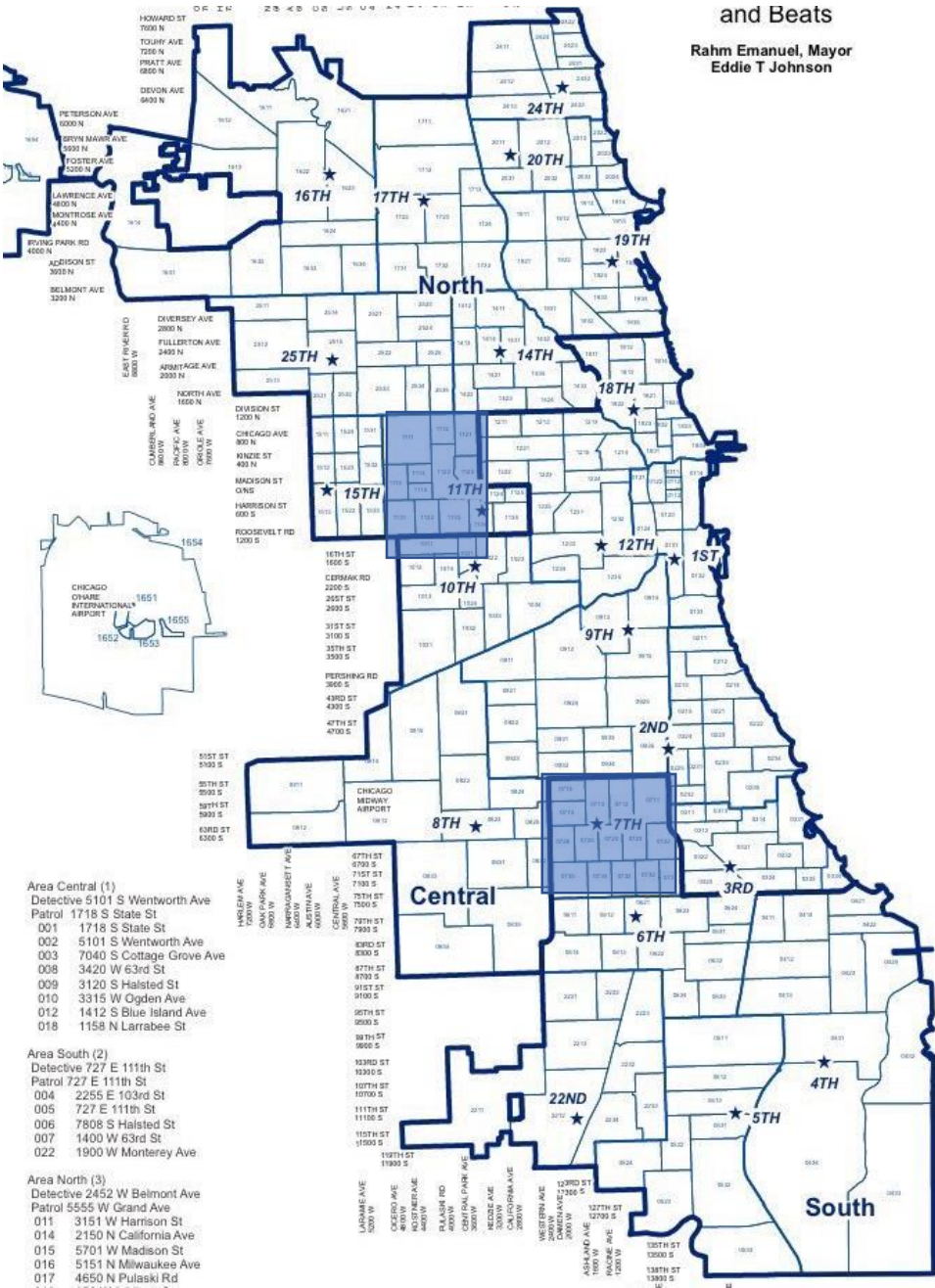
FIGURE 3. Average Homicide Rates in Chicago by Community Area (1970-1979, 1980-1989, 1990-1999, 2000-2009)



https://isps.yale.edu/sites/default/files/publication/2013/12/4/8yearsofcrime_final_ispsworkingpaper023.pdf

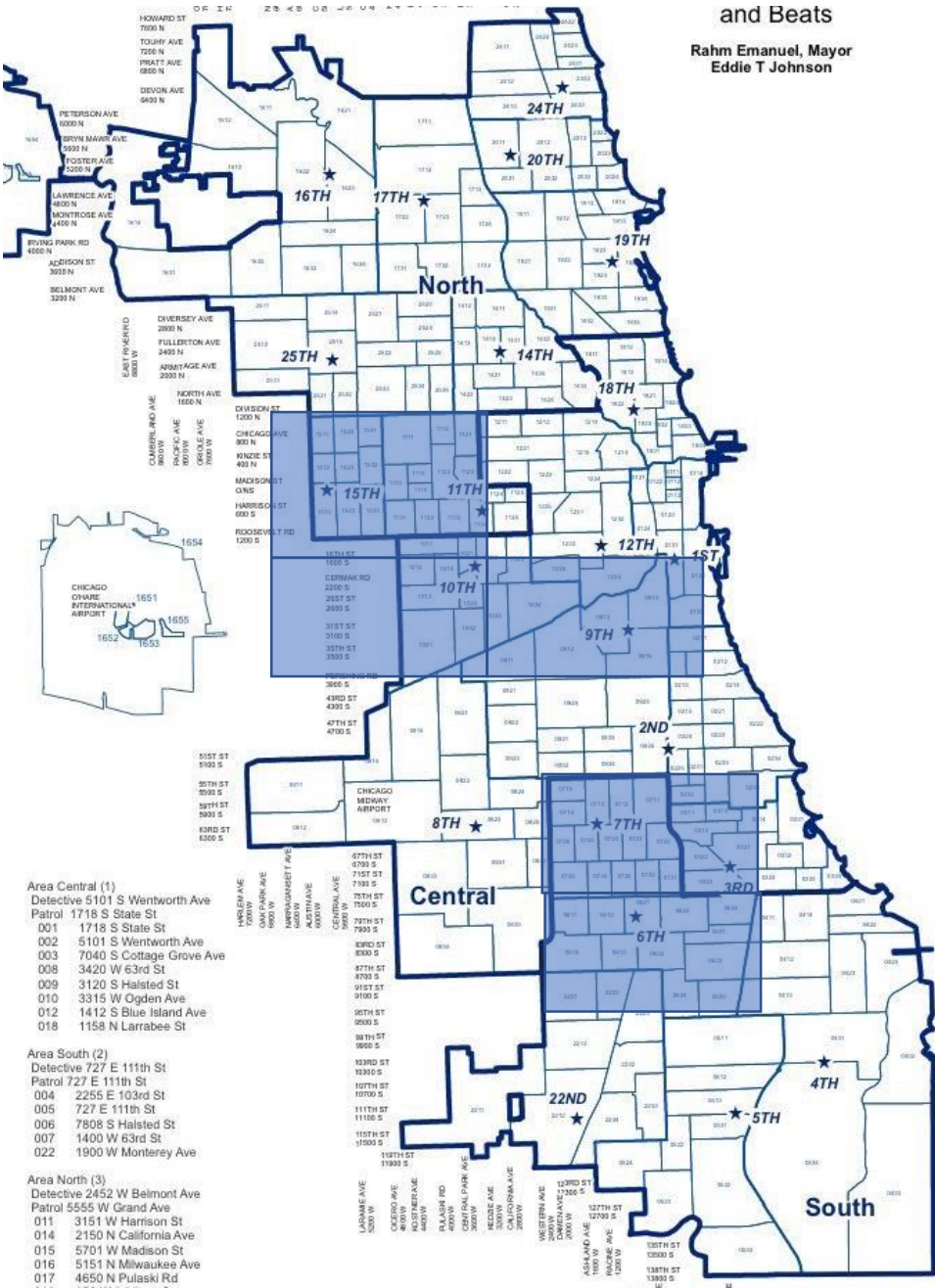
and Beats

Rahm Emanuel, Mayor
Eddie T Johnson



and Beats

Rahm Emanuel, Mayor
Eddie T Johnson



- 6
- 7
- 9
- 10
- 11
- 15

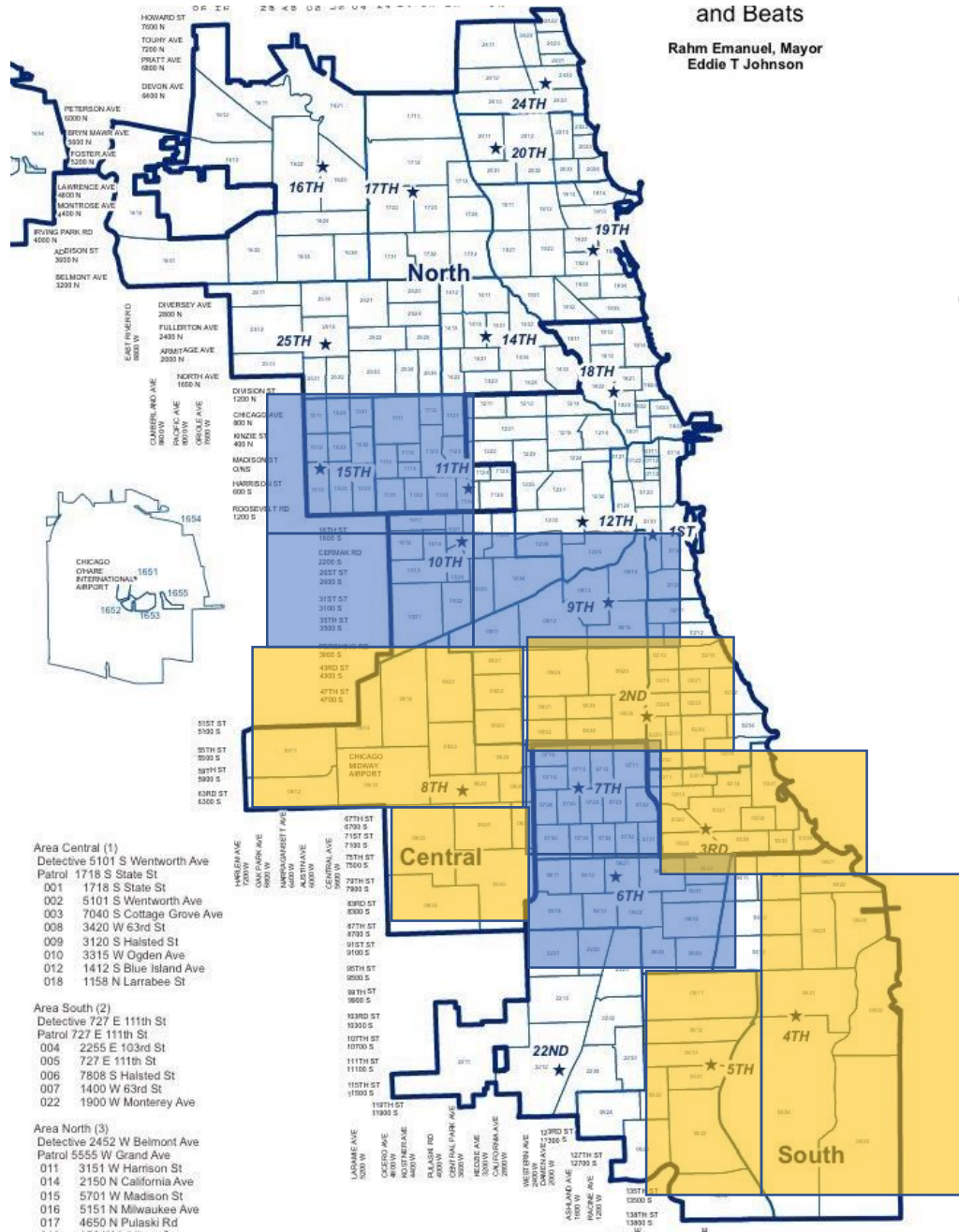
Area Central (1)
 Detective 5101 S Wentworth Ave
 Patrol 1718 S State St
 001 1718 S State St
 002 5101 S Wentworth Ave
 003 7040 S Cottage Grove Ave
 008 3420 W 63rd St
 009 3120 S Halsted St
 010 3315 W Ogden Ave
 012 1412 S Blue Island Ave
 018 1158 N Larrabee St

Area South (2)
 Detective 727 E 111th St
 Patrol 727 E 111th St
 004 2255 E 103rd St
 005 727 E 111th St
 006 7808 S Halsted St
 007 1400 W 63rd St
 022 1900 W Monterey Ave

Area North (3)
 Detective 2452 W Belmont Ave
 Patrol 5555 W Grand Ave
 011 3151 W Harrison St
 014 2150 N California Ave
 015 5701 W Madison St
 016 5151 N Milwaukee Ave
 017 4650 N Pulaski Rd

and Beats

Rahm Emanuel, Mayor
Eddie T Johnson



6
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22
25

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BEFORE

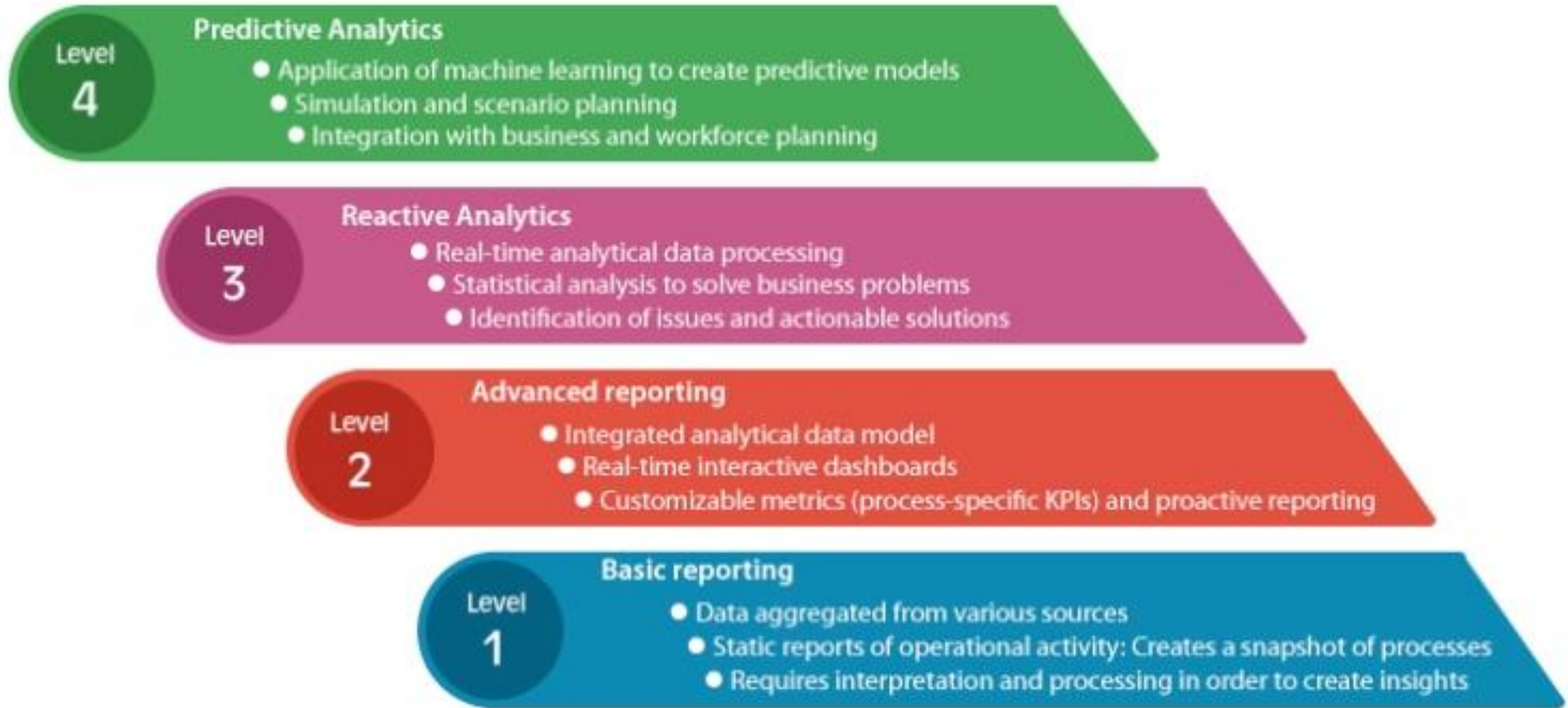
Centralized Approach
Centralized Capacity at Fusion
Center
Information Pushed to Officers

Multiple Data Sources
Limited Field Information
Numerous Platforms and Tools

AFTER

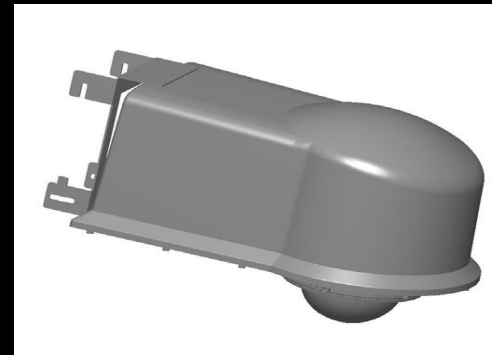
Decentralized Approach
SDSCs are Autonomous but
Connected
Two-Way Information
Exchange

Integrated Platform
Smart Devices
Streamlined Tools



Source: <https://blog.harbinger-systems.com/wp-content/uploads/2016/10/people-analytics-blog-image-final1.jpg>

SURVEILLANCE CAMERAS

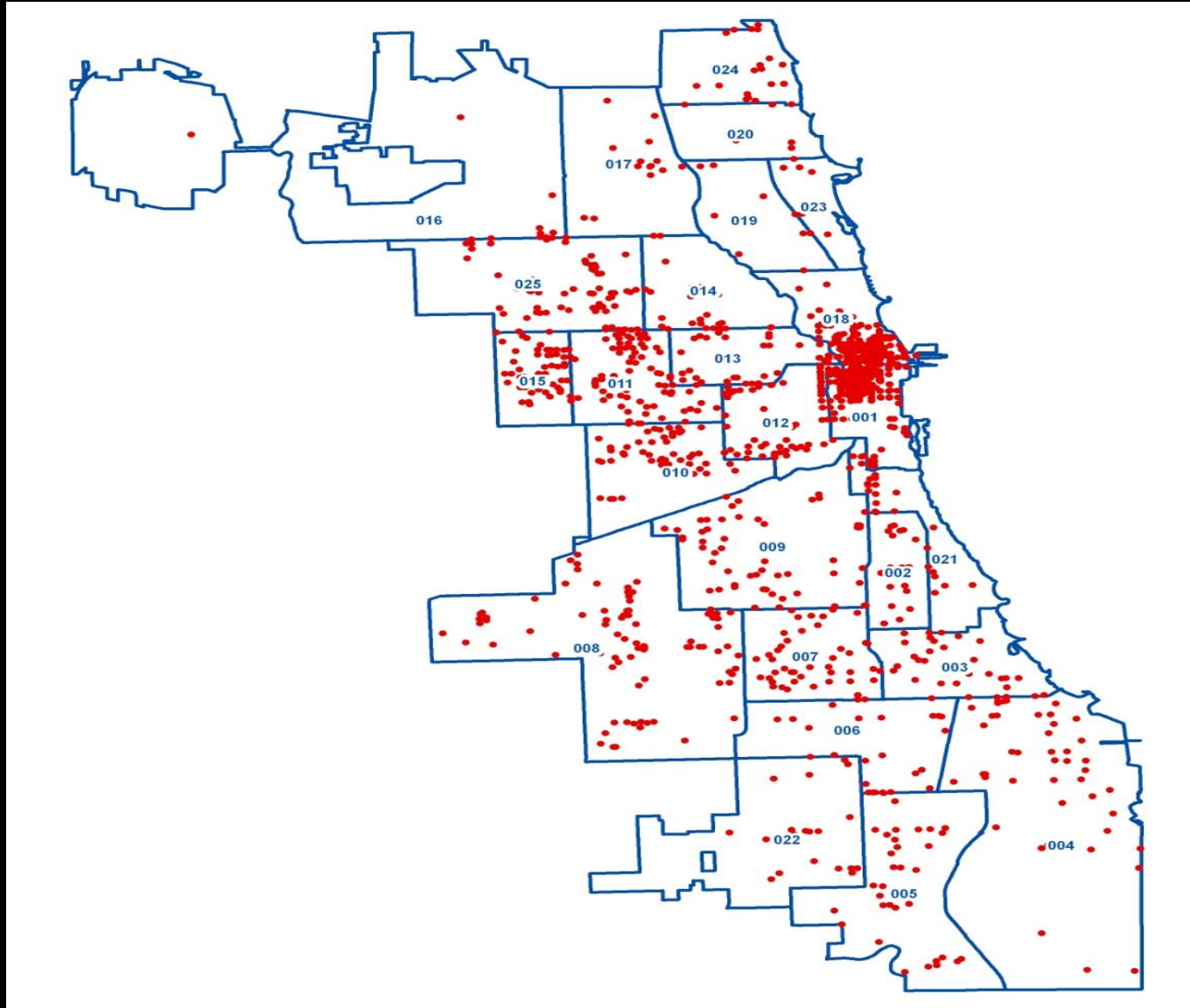


OVER 35,000 surveillance cameras
Police "POD" (Police Observation Device)

Chicago Transit Authority, Public Schools, Airports, Park District, private cameras



SURVEILLANCE CAMERAS

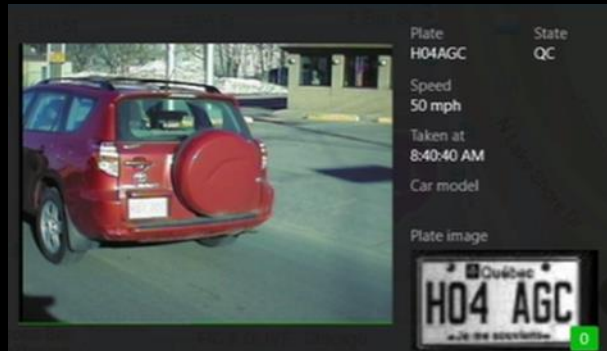


LICENSE PLATE READERS

250 Police-equipped License Plate Reader vehicles

Fixed License Plate Reader cameras

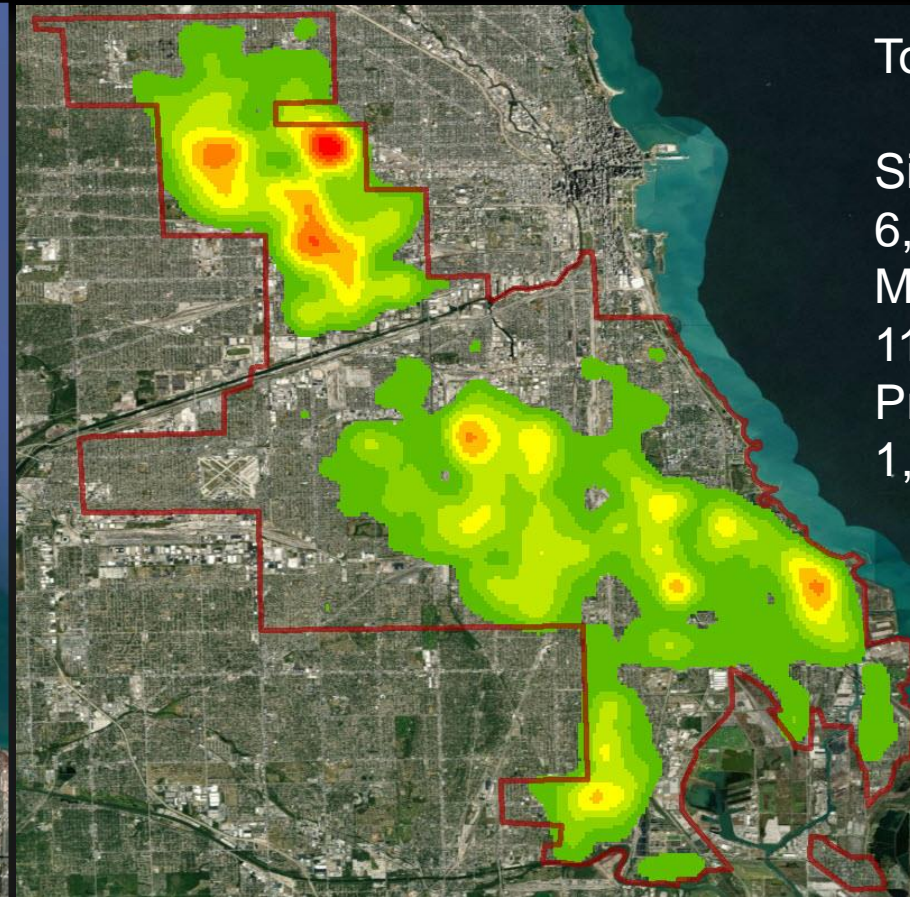
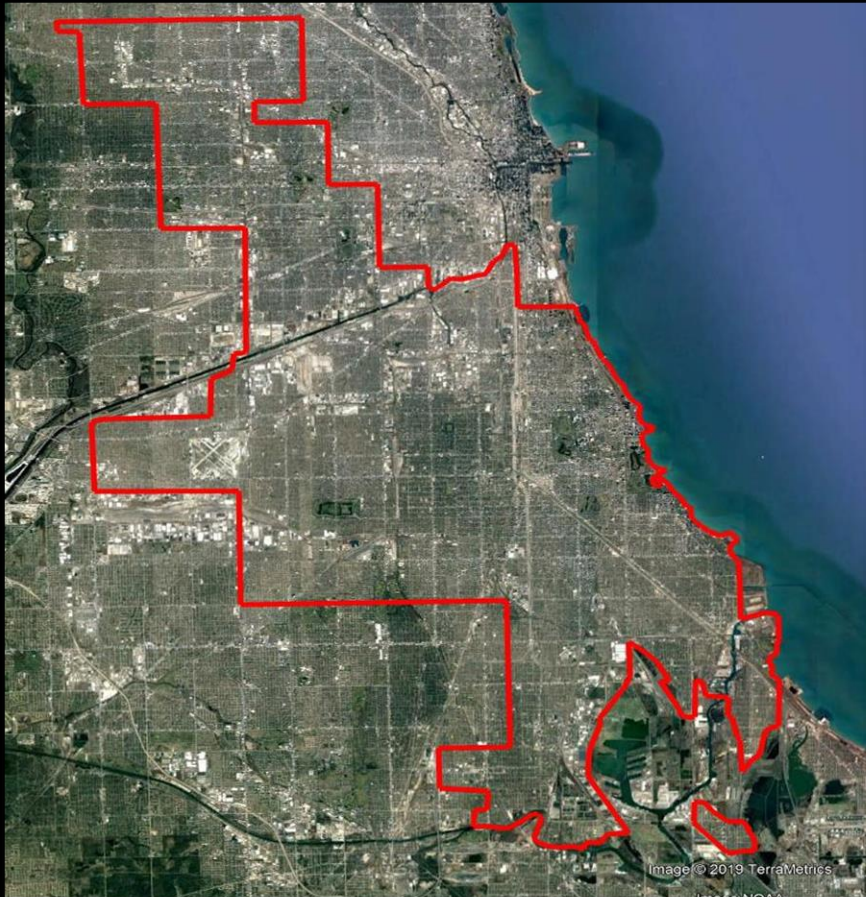
Access to other City agency License Plate Reader vehicles (Department of Finance “boot” vans)



SHOTSPOTTER

117 Sq Miles, largest deployment in United States

2018 Entire Year



Total Gunfire – 20,471

Single Gunshot Incidents –
6,614

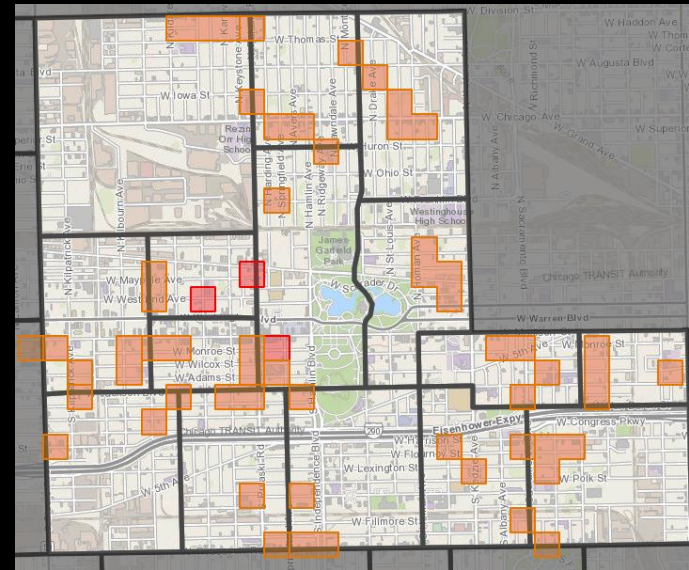
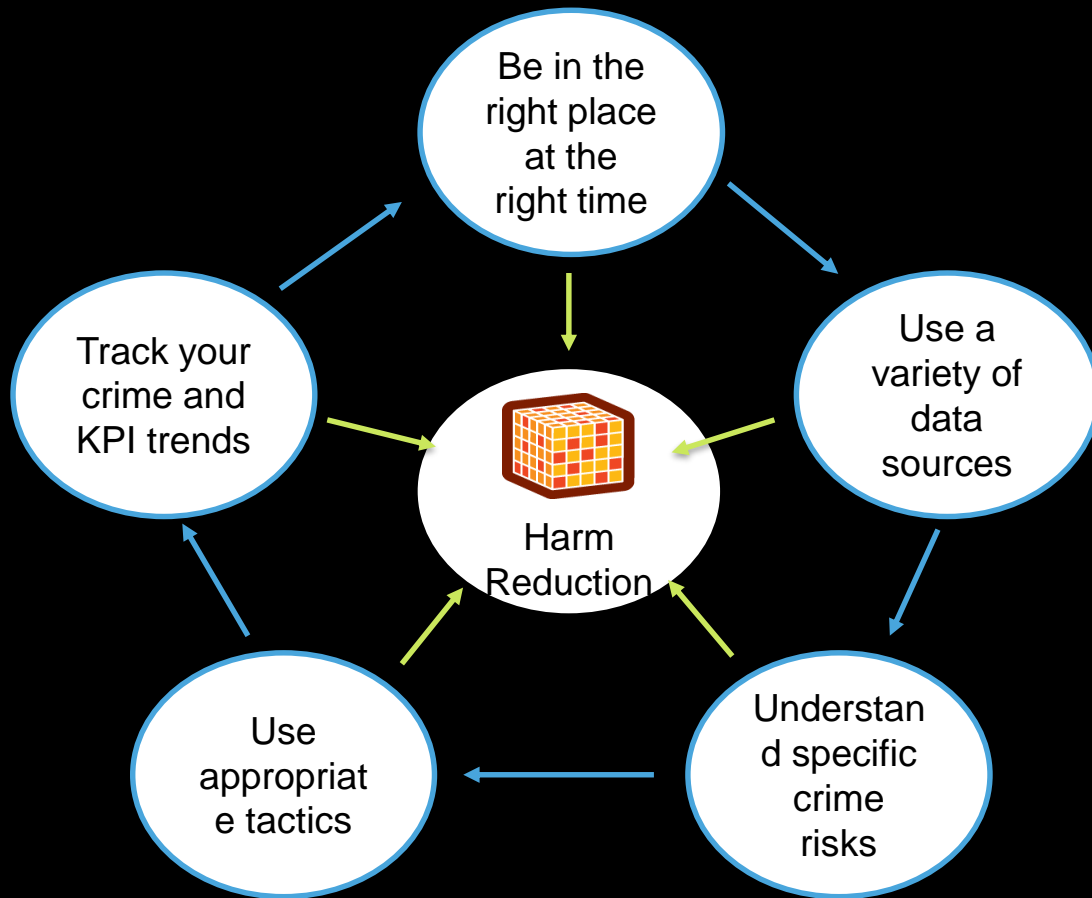
Multiple Gunshot Incidents –
11,993

Probable Gunshot Incidents –
1,864



SHOTSPOTTER MISSIONS

Formerly called HunchLab, Place-Based Prediction Tool



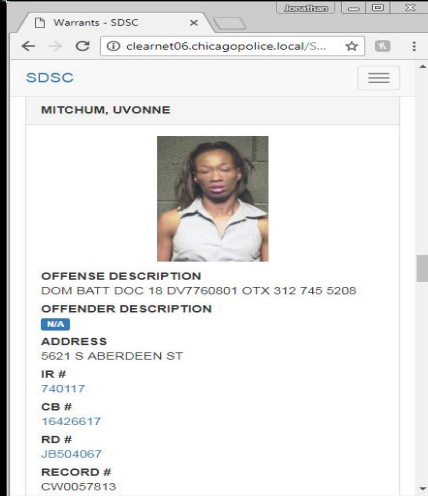
Uses Weather, Calls for Service, ShotSpotter alerts, Incidents, Arrests to identify areas of risk

Officers conduct proactive missions in these “zones”

Zones change three times a day (once per Tour of Duty)

SMART PHONES

3,500 smart phones deployed to police districts, 1,000 being deployed to Detec
Access to ShotSpotter, Intelligence, Dispatch, Name Checks, HunchLab, Camera Video, LPR



CURRENT STATE

ShotSpotter

SSL/
Dashboard

CLEAR

Critical
Facilities

POD/ OVS
Cameras

Social Media

Citizen Tips

Traffic

Mapping/ GIS

Vehicle GPS

Weather

Flight Tracker

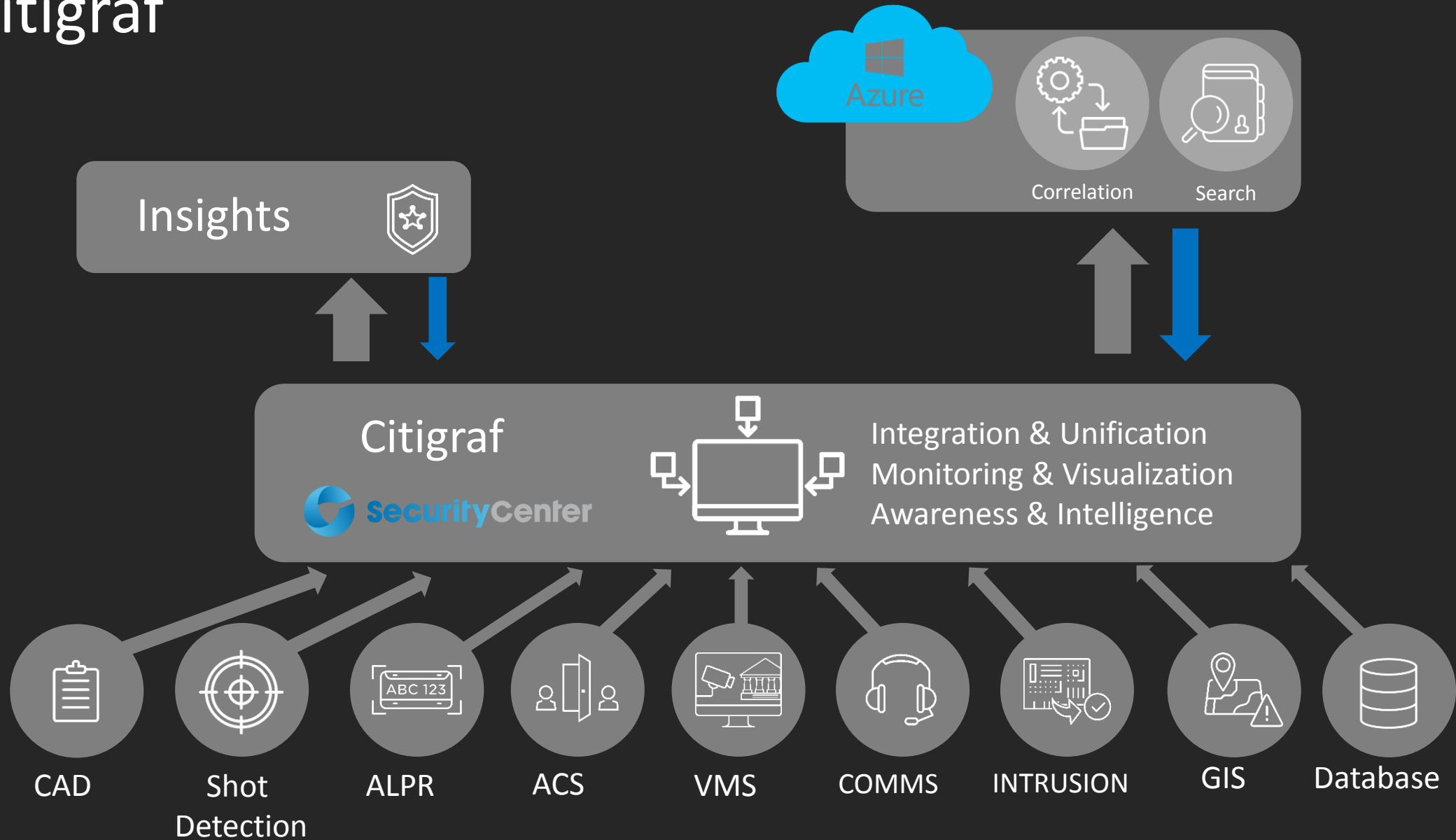
LPR

CAD

Major Events

CPD/ CFD
Radio

Citigraf



Security Dash | Home | Alert #71629

Multiple Gunshots

7:39:28 AM | Adia E Stevenson Exp 1 | Detect: 8 | View: 856

Search | One hour | 6.7 mi

Overview | Camera (8) | Social media (0) | Photos | Units (0) | Groups (0)

Hide map

ShotSpotter

Sounds: 3 | CID: 8 | ID: T16294 | Play all (7 sounds)

Cameras

Shopping Center 1 - Cam | Airport Checkin - Camera | City Train Station - Camera | City Escalator - Camera - C

The dashboard displays a 'Multiple Gunshots' alert at 7:39:28 AM at the location 'Adia E Stevenson Exp 1'. The alert has been detected by 8 sensors and viewed 856 times. The interface includes a search bar, a time filter set to 'One hour', and a distance filter set to '6.7 mi'. Navigation tabs include Overview, Camera (8), Social media (0), Photos, Units (0), and Groups (0). A 'Hide map' button is located in the top right. The main content area is divided into three sections: 'ShotSpotter' with 3 sounds (CID: 8, ID: T16294) and a 'Play all (7 sounds)' button; 'Cameras' with four thumbnails labeled 'Shopping Center 1 - Cam', 'Airport Checkin - Camera', 'City Train Station - Camera', and 'City Escalator - Camera - C'; and a timeline at the bottom showing a sequence of events from 7:39:12 to 7:39:28.

Citigraf Mobile



Coming Soon



Strategic Decision Support Centers

DAILY SITUATION ROOM BRIEF

01. Results prior mission
02. Crime overview maps
03. Crime insight
04. Resources
05. Miscellaneous
06. Mission

Decide & Collaborate

Disseminate

Analyze

Assess

Deploy

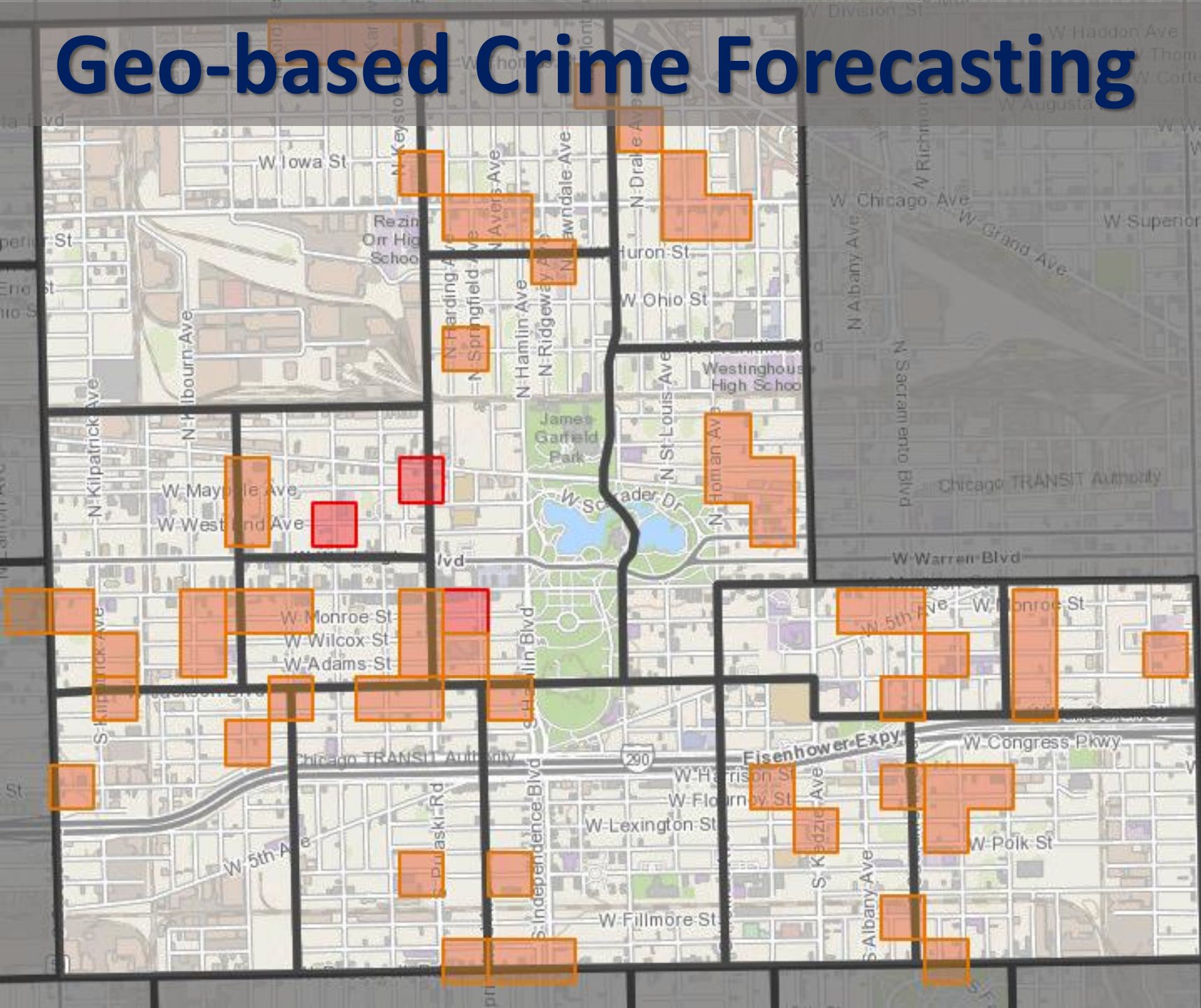
Collect



SDSC Intelligence-Action Cycle



Geo-based Crime Forecasting



-4° 78% 11:38

HunchLab

Homicide 1st ...

Mission Timer

00:17 of 15:00

HunchLab

HunchLab Mission Dashboard



Using the app

This application presents key metrics from HunchLab data, pulled directly from the CAD GPS database

Select the date below.

2019-03-17

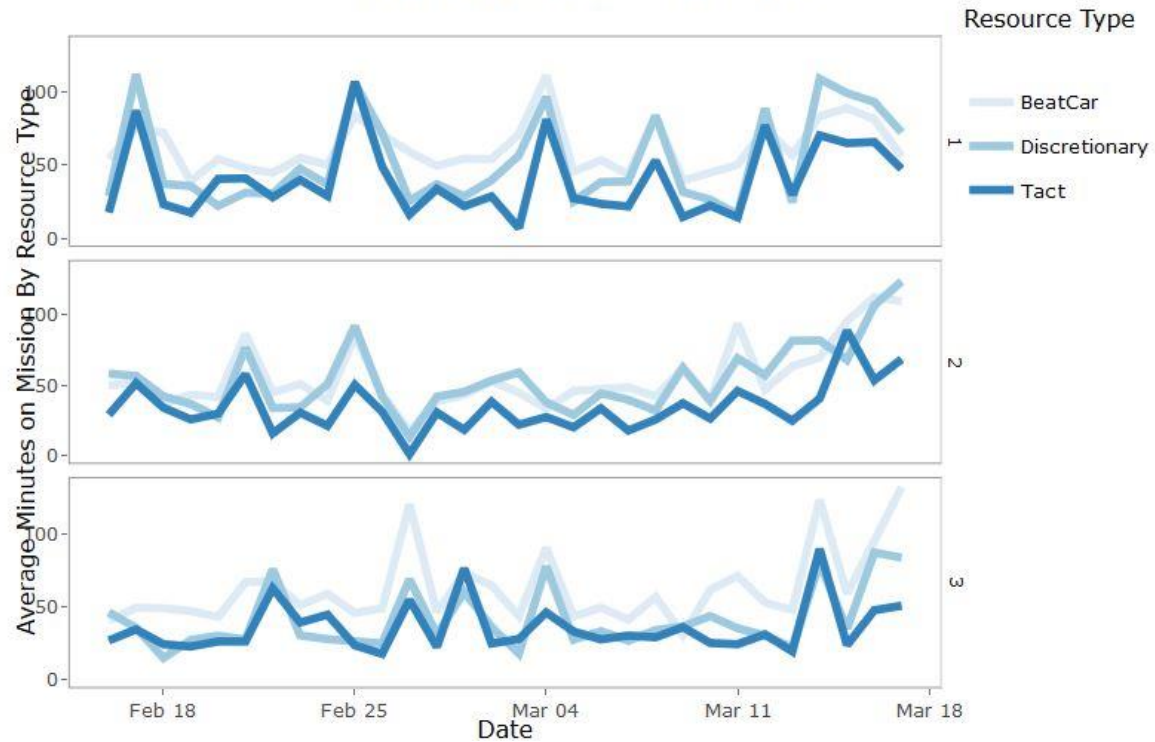
Choose which districts you'd like to analyze

7

By Watch ▾ By Resource Type ▾ By Car ▾

This shows a daily average of minutes spent in HunchLab boxes for the past 30 days, broken down by resource type and watch. Resource Type can be either Discretionary, Tact, or Beat Car. Discretionary is defined as any CAD unit as follows: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 20, 30, 36 - 59, 70 - 99

Minutes on Mission for 2019-03-17



District Snapshot

[Link to Caboodle](#)



Citywide SnapShot

1st District

2nd District

3rd District

4th District

5th District

6th District

7th District

8th District

9th District

10th District

11th District

12th District



7th District Snapshot

Find Car with PDT 706H

Find Vehicle no PDT 1776

Last Ping inside Active HunchLab Mission

All

0 - 30 Minutes

31 - 60 Minutes

> 61 Minutes

No Pings

Vehicles w/PDT

706H

Timestamp: 3/19/2019,
8:31:07
Speed: 0
Direction of Travel: 358
Inside Beat: 0735
VehicleID: 7007

706M

Timestamp: 3/19/2019,
8:31:16
Speed: 0
Direction of Travel: 84
Inside Beat: 0712
VehicleID: 7068

710

Timestamp: 3/19/2019,
8:31:15
Speed: 9
Direction of Travel: 76
Inside Beat: 0715
VehicleID: 7110

711

Timestamp: 3/19/2019,
8:30:44
Speed: 9
Direction of Travel: 4
Inside Beat: 0711
VehicleID: 7111
Last update: a few seconds ago

Open Dispatches

No Data

Last update: a few seconds ago

Calls

Open Dispatches

0

ShotSpotter Events

0

Last Hour

Last update: a few seconds ago

Last Hr

Today

Vehicles w/PDT

24

Within the District

Last update: a few seconds ago

Vehicles No PDT

11

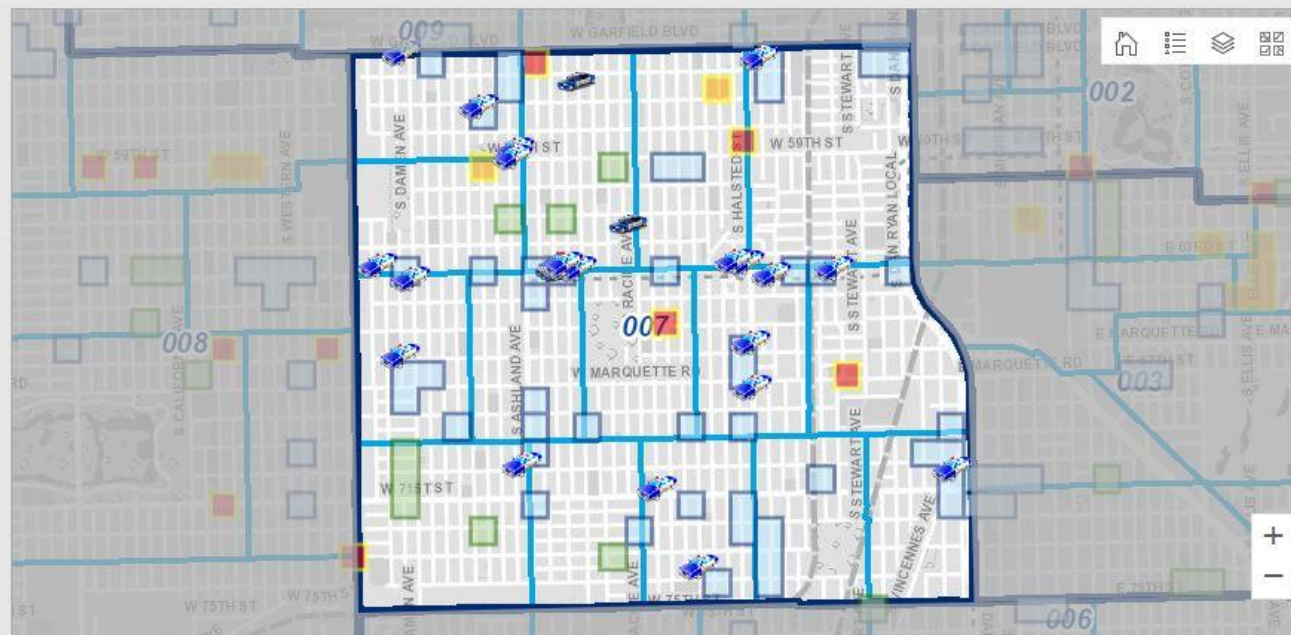
Within the District

Last update: a few seconds ago

Vehicles inside HunchLab

11

Last update: a few seconds ago



Current Dispatches

No Data

Last update: a few seconds ago

7th District Snapshot (copy)

Last Ping inside Active HunchLab Mission All No Pings

Vehicles w/PDT

793
 Timestamp: 4/22/2018, 6:34:28
 Speed: 0
 Direction of Travel: 354
 Inside Beat: 0711

706DR
 Timestamp: 4/22/2018, 6:11:25
 Speed: 0
 Direction of Travel: 357
 Inside Beat: 0713

726R
 Timestamp: 4/22/2018, 6:12:10
 Speed: 0
 Direction of Travel: 331
 Inside Beat: 0713

735R
 Timestamp: 4/22/2018, 4:40:48
 Speed: 0
 Direction of Travel: 335
Last update: a few seconds ago

◀ w/PDT ▶

Open Dispatches

Event: 1811203317
Unit: 715
 Location: 6105 S MARSHFIELD AV
 Timestamp: 4/22/2018, 6:07:35
 Call Type: PERKNI
 Beat: 0714

Event: 1811203317
Unit: 713
 Location: 6105 S MARSHFIELD AV
 Timestamp: 4/22/2018, 6:07:35
 Call Type: PERKNI
 Beat: 0714

Event: 1811203263
Unit: 711
 Location: ST BERNARD - HOSPITAL @ 326 W 64TH ST
 Timestamp: 4/22/2018,
Last update: a few seconds ago

◀ Calls ▶

Open Dispatches

5
Last update: a few seconds ago

ShotSpotter Events

0
Last Hour
Last update: a few seconds ago

◀ Last Hr Today ▶

Vehicles w/PDT

19
 Within the District
Last update: a few seconds ago

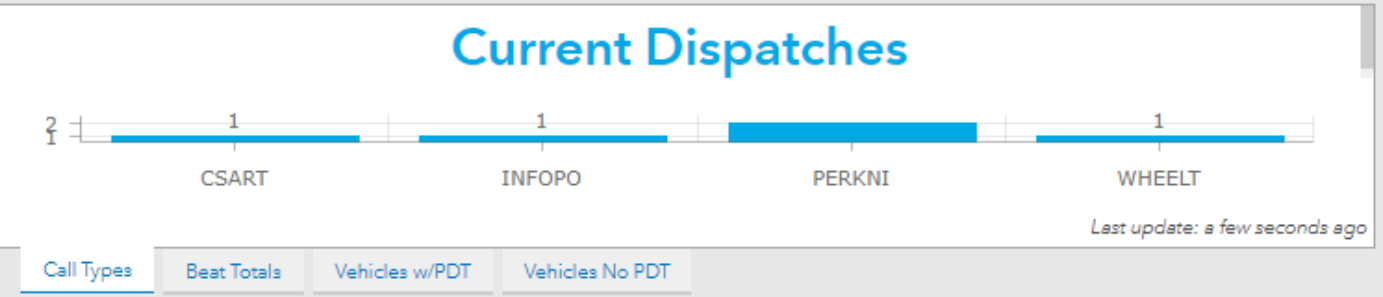
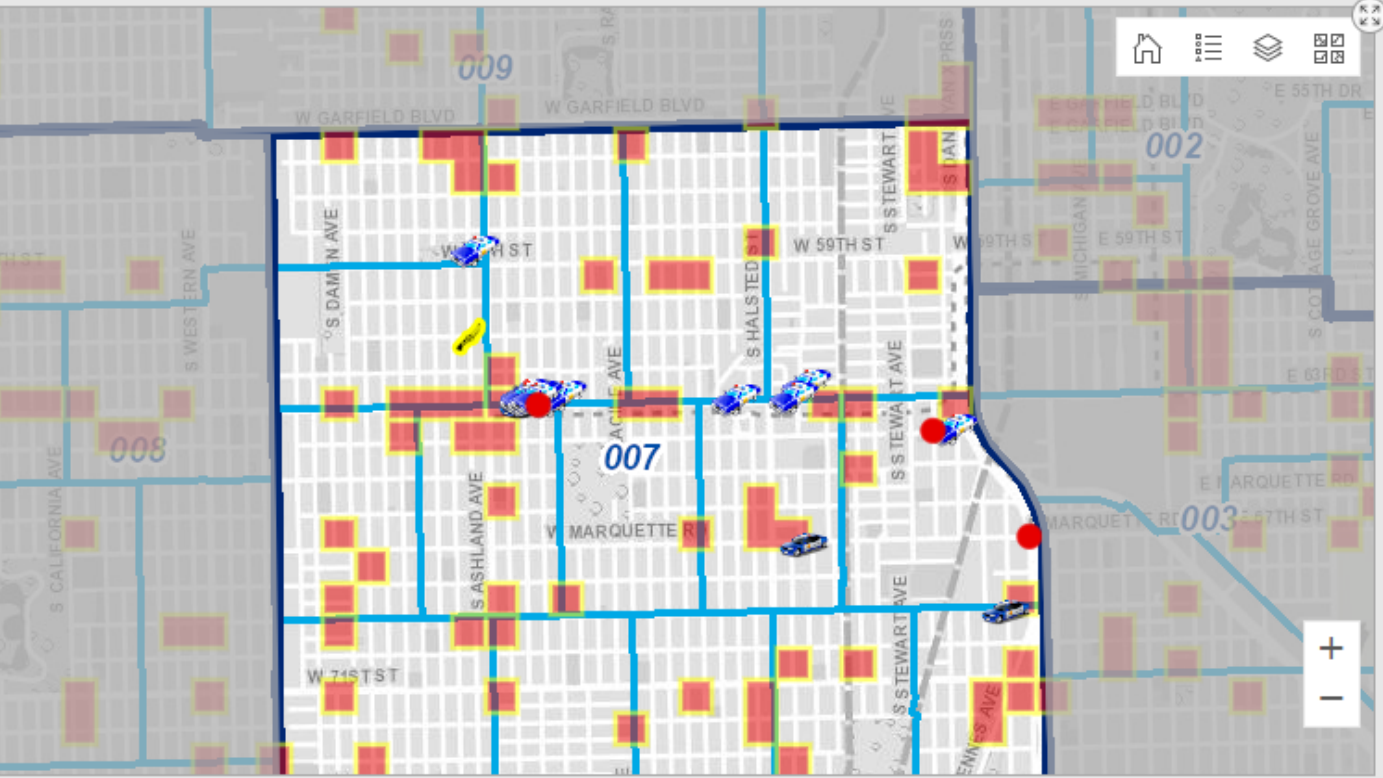
Vehicles No PDT

18
 Within the District
Last update: a few seconds ago

Vehicles inside HunchLab

23
Last update: a few seconds ago

◀ Vehicle ▶

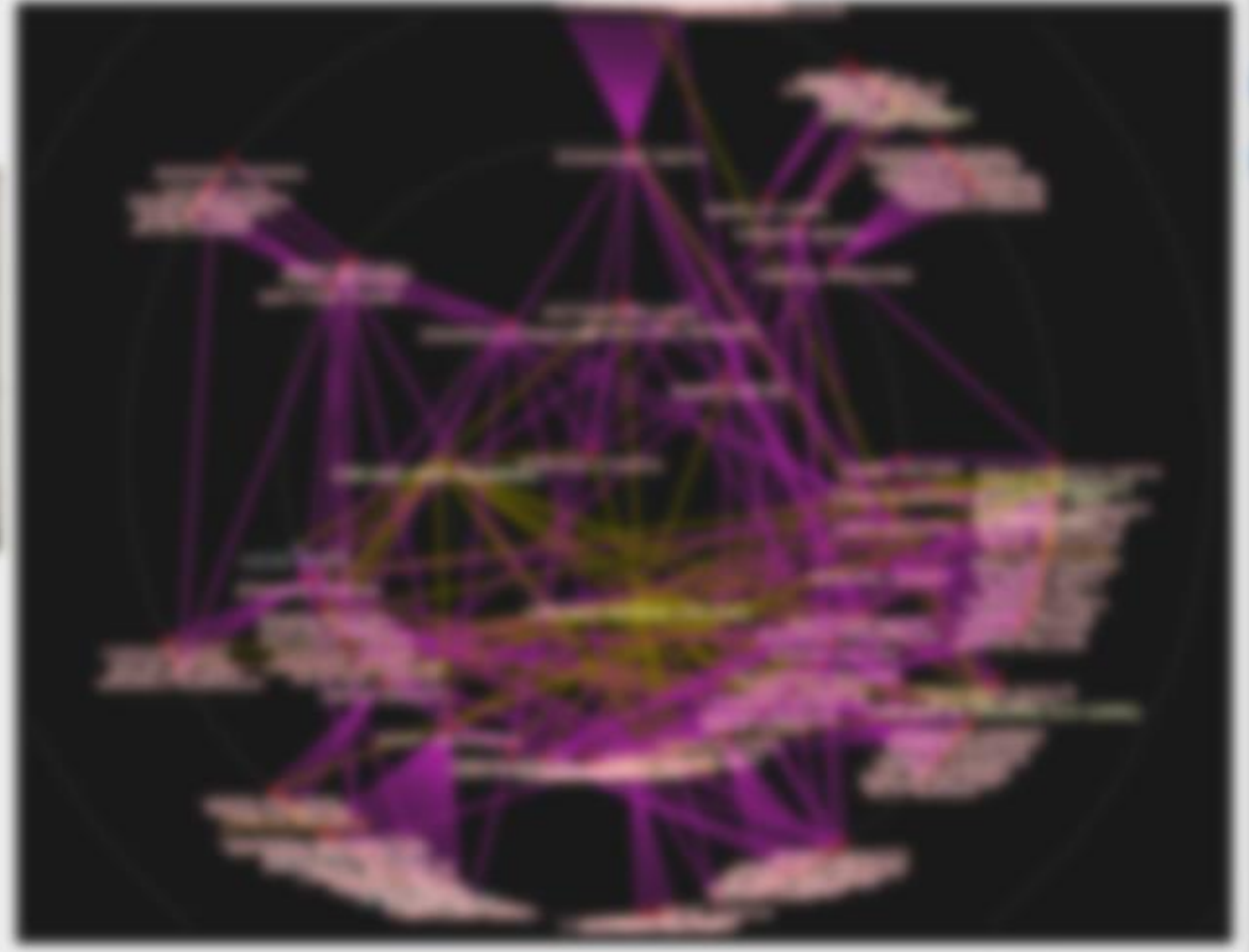


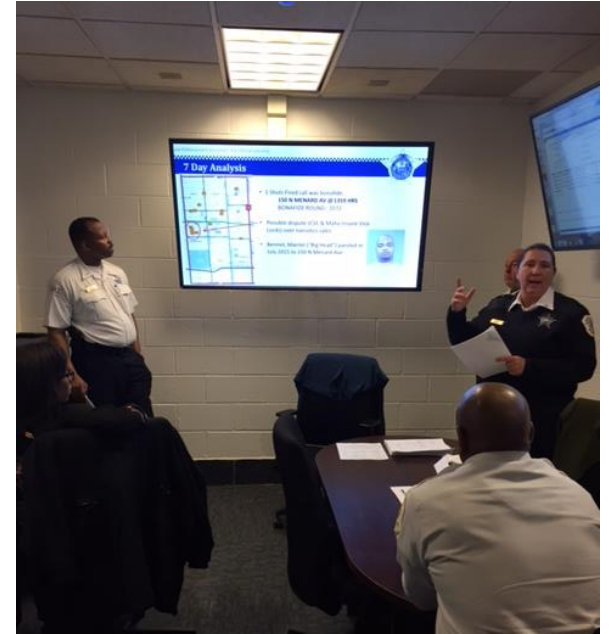
Filtering options including "All", "Active", and "Archived" tabs, and a search bar.

Profile information section with fields for Name, Email, and Phone.



Profile statistics including "Age", "Height", "Weight", "Sex", and "Race" with corresponding values.





Chicago Police

SDSC

SDSC Impacts

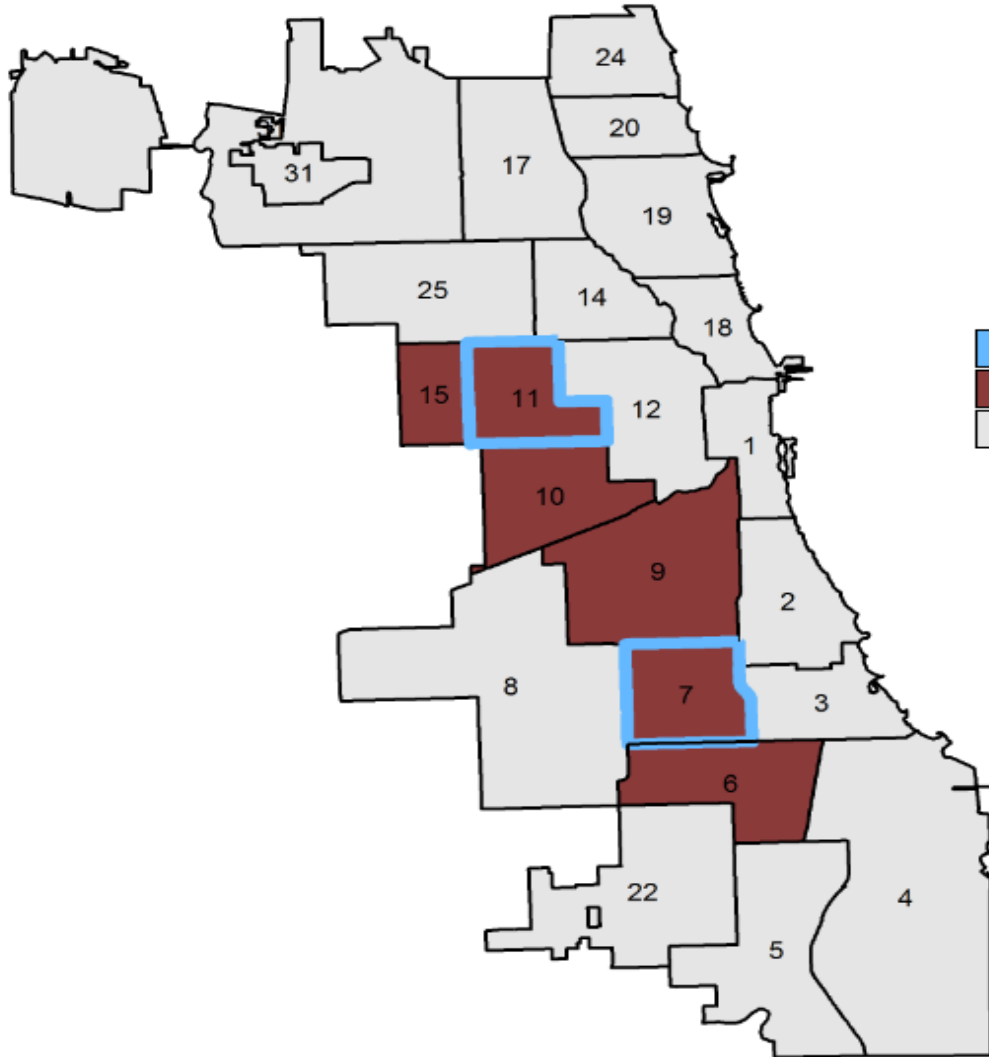
Shootings

- The Tier 1 districts were online most of 2017. When comparing Tier 1s 2018 vs 2016 (prior to their go-live), **shootings are down 37%, the largest decrease of all the Tiers.**
- The Tier 2 districts were online most of 2018. When comparing Tier 2s 2018 vs 2017 (prior to their go-live), **shootings are down 18%, the largest decrease of all the Tiers.**

Murders

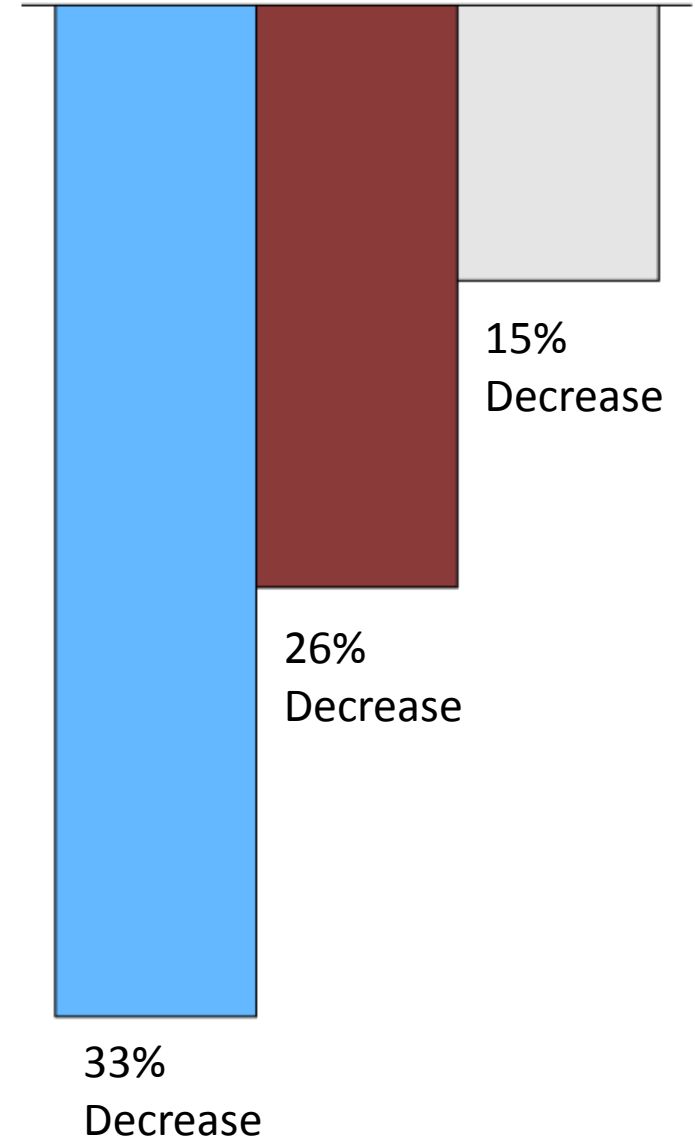
- The Tier 1 districts were online most of 2017. When comparing Tier 1s 2018 vs 2016 (prior to their go-live), **murders are down 33%, the largest decrease of all the Tiers.**
- The Tier 2 districts were online most of 2018. When comparing Tier 2s 2018 vs 2017 (prior to their go-live), **murders are down 19%, the largest decrease of all the Tiers.**

Percent Change in Shooting Incidents 2017 vs 2016

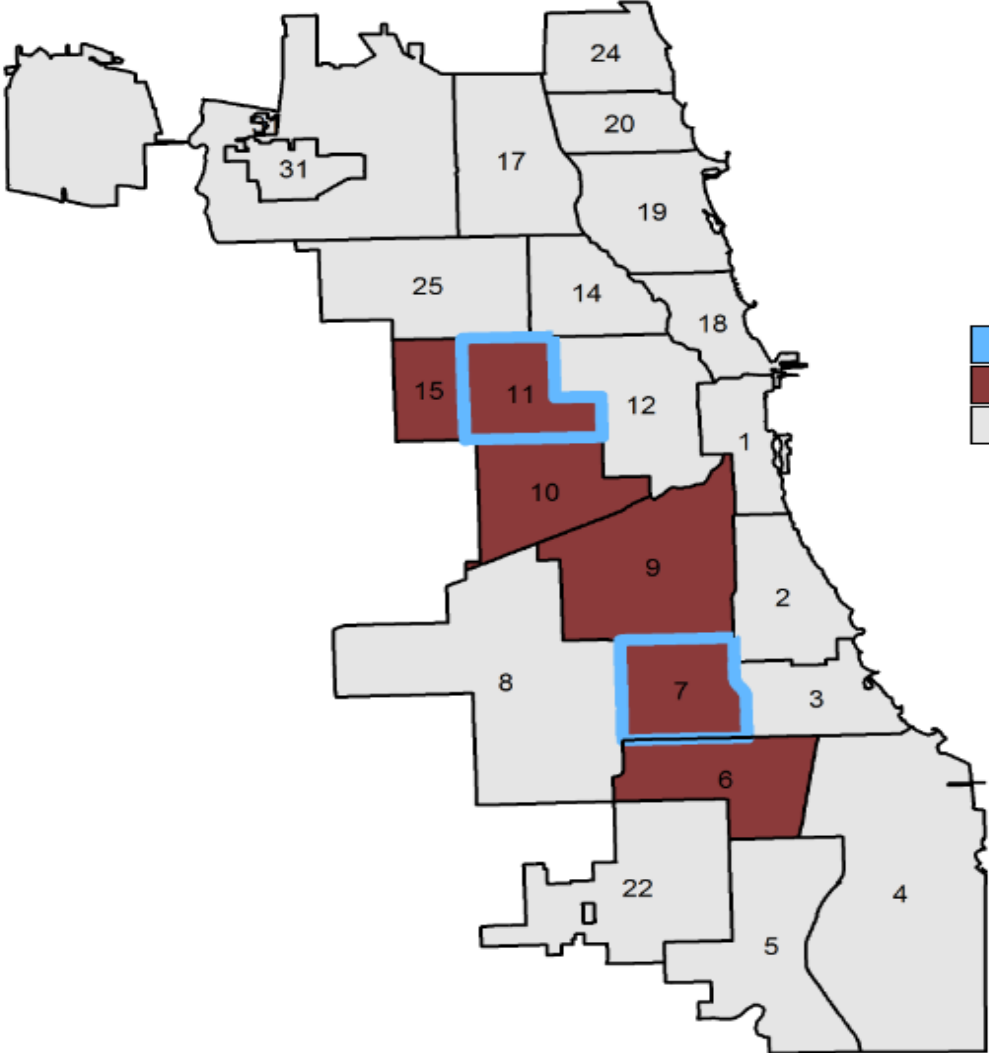


- Districts 7, 11
- All SDSC Districts
- All Non-SDSC Districts

TOTAL
21%
Decrease

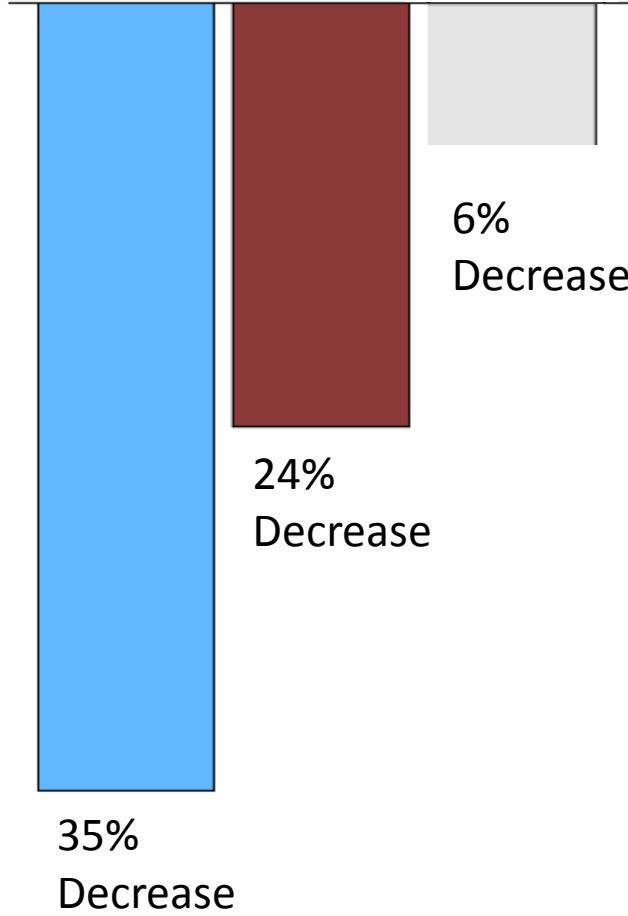


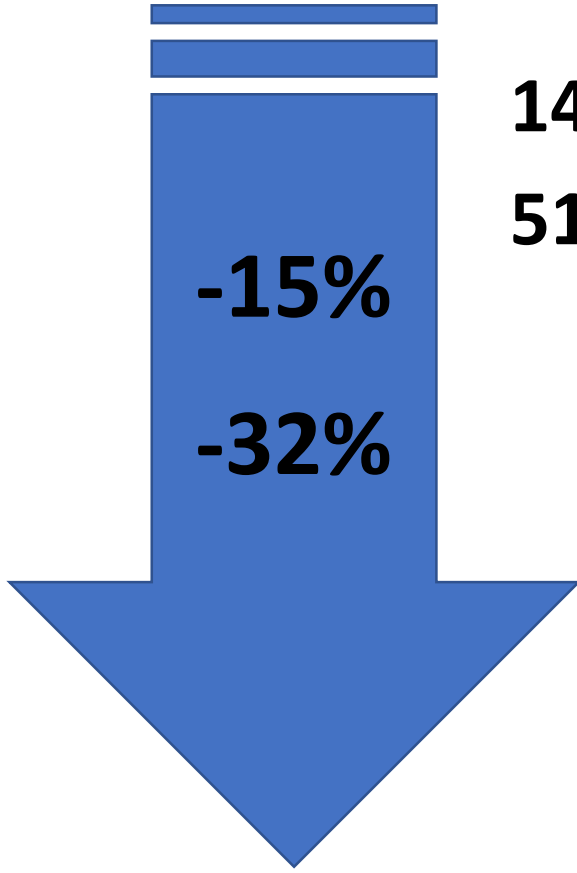
Percent Change in Homicides 2017 vs 2016



- Districts 7, 11
- All SDSC Districts
- All Non-SDSC Districts

Total 16%
Decrease





1404 Fewer Shooting Victims vs 2016 (-32%)

516 Fewer Shooting Victims vs 2017 (-15%)

214 Fewer Murders vs 2016 (-28%)

97 Fewer Murders vs 2017 (-15%)

Year to Date 2019 (thru 25 Jun)

- **Lowest Robberies in at least 20 years (-45% vs 20 yr average)**
 - 2019 YTD: 3,494, 20 Yr Avg: 6,326
- **Lowest Burglaries in at least 20 years (-55% vs 20 yr average)**
 - 2019 YTD: 4,311, 20 Yr Avg: 9,695
- **Lowest Motor Vehicle Thefts in at least 20 years (-50% vs 20 yr average)**
 - 2019 YTD: 4,228, 20 Yr Avg: 8,478
- **Shootings down 12% vs 2018, 29% vs 2017**
- **Murders down 8% vs 2018, 26% vs 2017**

THANK YOU!



Jonathan.Lewin@ChicagoPolice.org